

REMARKS

In response to the Office Action mailed February 12, 2008, Applicant respectfully requests reconsideration of the Application in view of the foregoing Amendments and the following Remarks. The claims as now presented are believed to be in allowable condition.

Claims 3 and 15 have been canceled, and claims 1, 2, 13, 14, 25, and 26 have been amended. Claims 1, 2, 4-14, 16-27 remain in this application, of which claims 1, 13, and 25 are independent claims.

Rejection of Claims 1, 2, 13, 14, 25, and 26 under 35 U.S.C. §102(b)

Claims 1, 2, 13, 14, 25, and 26 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,269,181 to Acharya (hereafter referred to as “Acharya”). Applicants respectfully traverse this rejection.

Claims 1, 13, and 25 have been amended to recite that the reference luminance is determined after the respective interpolated color components for the pixel location are determined such that the reference luminance is determined using such respective interpolated color components.

Support for such limitations is found at page 5, line 30 to page 6, line 5 of the Present Application which states:

Referring to Fig. 8, the interpolation processor 208 interpolates the region of pixel data 206 to generate the interpolated color components R', B', and G'. Such interpolation algorithms for generating the interpolated color components R', B', and G' are known to one of ordinary skill in the art.

In addition, the RGB matrix 202 determines a reference luminance, Y1H, from the interpolated color components R', B', and G' as follows (step 304 of Fig. 7):

$$Y1H = (19*R' + 38*G' + 7*B')/64$$

(Emphasis added.)

In rejecting claims 1, 13, and 25, the Examiner just states the process for determining the interpolated color components in Acharya. For example, on page 3 of the Office Action dated February 12, 2008, the Examiner states:

...(Acharya discloses that for Red and Blue pixels perform a processing that for example if the raw pixels is a Blue pixel, to calculate *the missing Red* would first calculate *the median of the Green pixels* surrounding said Blue pixel (The Examiner is reading the median of the Green pixels surrounding said Blue pixel as the *Reference luminance* for the pixel location) then, would calculate the median of the Green pixels around the Red pixels that surrounds said blue pixels....(Emphasis added.)

The median of the Green pixels that the Examiner cites above as the reference luminance is determined before the missing interpolated Red color component is determined.

Thus, Acharya fails to disclose determining the reference luminance after the interpolated color components for the pixel location are already determined such that the reference luminance is determined using such interpolated color components, as recited in amended claims 1, 13, and 25.

Anticipation of a claimed invention requires the presence in a single prior art document of *each and every* element of the properly construed claim. The Federal Circuit has set out the following requirements for anticipation pursuant to 35 U.S.C. §102:

...that a patent claim is anticipated under 35 U.S.C. §102 “must demonstrate, among other things, identity of invention.”...[O]ne who seeks such a finding must show that each element of the claim in issue is found, either expressly or under principles of inherency, in a single prior art reference, or that the claimed invention was previously known or embodied in a single prior art device or practice.

Minnesota Mining & Mfg. Co. v. Johnson & Johnson Orthopaedics, Inc., 976 F.2d 1559, 1565 (Fed. Cir. 1992).

Because Acharya does not disclose, teach, or suggest all of the limitations of amended claims 1, 13, and 25, the rejection of claims 1, 13, and 25 under 35 U.S.C. §102(b) in view of Acharya should be withdrawn.

Claim 2 which depends from and further limits claim 1, is allowable for at least the same reasons that claim 1 is allowable as stated above.

Claim 14 which depends from and further limits claim 13, is allowable for at least the same reasons that claim 13 is allowable as stated above.

Claim 26 which depends from and further limits claim 25, is allowable for at least the same reasons that claim 25 is allowable as stated above.

Rejection of Claims 4, 5, 7, 9-12, 16, 17, 19, 21-24, and 27 under 35 U.S.C. §103(a)

Claims 4, 5, 7, 9, and 10-12 which depend from and further limit claim 1, are allowable for at least the same reasons that claim 1 is allowable as stated above.

Claims 16, 17, 19, and 21-24 which depend from and further limit claim 13, are allowable for at least the same reasons that claim 13 is allowable as stated above.

Claim 27 which depends from and further limits claim 25, is allowable for at least the same reasons that claim 25 is allowable as stated above.

In addition, please note that the use of U.S. Patent No. 5,668,932 to Laney (hereafter referred to as “Laney”) for any rejection of the claims under 35 U.S.C. §103(a) is not appropriate because claims 1, 13, and 25 still recite that the virtually filtered luminance is determined from a first processing of the region of pixel data and without using other pixel data for a pixel location within the region, and that the reference luminance is determined for the pixel location from a second processing of the same region of pixel data and without using other pixel data.

The Examiner is respectfully reminded of the MPEP, §2141.03(VI) which states “PRIOR ART MUST BE CONSIDERED IN ITS ENTIRETY, INCLUDING DISCLOSURES THAT TEACH AWAY FROM THE CLAIMS.”

However, Figure 13 of Laney teaches using a cell from a previous image frame (see step 116 in the flow-chart of Figure 13 of Laney) for determining whether a cell of a current image frame should be designated a “skip cell” during image data compression. Thus, Laney uses other pixel data (i.e. of the previous image frame) from the cell pixels of the current image frame.

The Examiner recites Figures 2-4 and col. 1, line 31 to col. 2, line 24 of Laney. However, note that Figures 2-4 and col. 1, line 31 to col. 2, line 24 are for just describing the Prior Art to Laney. Thus, Laney views such Prior Art teachings as being disadvantageous and deficient by stating that the object of Laney is to improve upon such a prior art pixel data compression technique by using cells of a previous image frame when compressing pixel data of a current image frame. Thus, Laney touts using other pixel data aside from just the pixels of a cell of a current image frame by also using a cell of a previous image frame.

Thus, Laney teaches away from determining the virtually filtered and references luminances with just the region of pixel data from the image sensor without using other pixel data by touting use of pixel cells from a previous image frame when compressing image data for a current image frame.

Accordingly, Laney is not appropriate prior art for rejection of any claims under 35 U.S.C. §103(a) since all of the claims include the base limitations of independent claims 1, 13, and 25.

Allowable Subject Matter

Claims 6, 8, 18, and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 6 and 8, which depend from and further limit claim 1, are allowable for at least the same reasons that claim 1 is allowable as stated above.

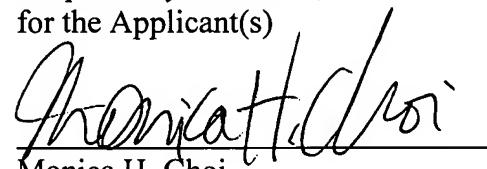
Claims 18 and 20, which depend from and further limit claim 13, are allowable for at least the same reasons that claim 13 is allowable as stated above.

Conclusions

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. Please feel free to contact the undersigned should any questions arise with respect to this case that may be addressed by telephone.

Respectfully submitted,
for the Applicant(s)

By:


Monica H. Choi
Reg. No. 41,671
Law Office of Monica H. Choi
P.O. Box 3424
Dublin, OH 43016-0204
(614) 789-0240
(614) 789-0241 (Fax)

Dated: May 9, 2008

CERTIFICATE OF MAILING

The undersigned hereby certifies that the foregoing AMENDMENT AND RESPONSE is being deposited in the United States Postal Service, as first class mail, postage prepaid, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 9th day of May, 2008.


Monica H. Choi
Reg. No. 41,671